

CLAIMS

What is claimed is:

1. A method of connecting to a wireless communication access point  
5 comprising:

a) an initiator device broadcasting a first wireless message to a plurality  
of potential access point devices, said initiator device storing therein a list of  
recognized device addresses for connecting thereto;

b) said initiator device receiving a plurality of second wireless messages  
10 from a set of said plurality of potential access point devices;

c) said initiator device comparing device addresses of said plurality of  
second wireless messages for address matches with said list of recognized  
device addresses;

d) applying a fitness function to address matches of said c) to determine  
15 a single address; and

e) connecting to an access point device corresponding to said single  
address.

2. The method as described in Claim 1 wherein set of said plurality of  
20 potential access point devices is defined by a quantity of device threshold.

3. The method as described in Claim 1 wherein set of said plurality of  
potential access point devices is defined by a time of discovery threshold.

4. The method as described in Claim 1 wherein said fitness function comprises an occupancy level less than a predetermined threshold.

5 5. The method as described in Claim 1 wherein said fitness function comprises signal strength greater than a predetermined threshold.

6. The method as recited in Claim 1 wherein said fitness function comprises residing within a predetermined physical distance.

10 7. The method as recited in Claim 1 wherein said initiator device and said responding device are Bluetooth-enabled devices.

15 8. The method as recited in Claim 1 wherein said access point device is coupled to a network comprising a network server.

9. The method of Claim 8 wherein a list of all current network access point addresses is maintained on said network server.

20 10. The method as recited in Claim 9 wherein said list of access point addresses of c) is compared to said list of current network access point addresses, any differences being updated within said list of access point addresses in said memory cache of said initiator device.

11. The method of Claim 9 wherein said initiator device abstracts said list of access point addresses into a single abstract name.

- 5           12. A wireless communication device comprising:
- a bus;
- a wireless transceiver unit coupled to said bus for communicating with responding devices;
- a memory cache coupled to said bus; and
- 10           a processor coupled to said bus, said processor for performing a method for selecting and connecting to a responding access point device, said method comprising:
- a) an initiator device broadcasting a first wireless message to a plurality of potential access point devices, said initiator device storing therein a list of
- 15           recognized device addresses for connecting thereto;
- b) said initiator device receiving a plurality of second wireless messages from a set of said plurality of potential access point devices;
- c) said initiator device comparing device addresses of said plurality of second wireless messages for address matches with said list of recognized
- 20           device addresses;
- d) applying a fitness function to address matches of said c) to determine a single address; and

e) connecting to an access point device corresponding to said single address.

13. The method as described in Claim 12 wherein set of said plurality  
5 of potential access point devices is defined by a quantity of device threshold.

14. The method as described in Claim 12 wherein set of said plurality  
of potential access point devices is defined by a time of discovery threshold.

10 15. The method as described in Claim 12 wherein said fitness function  
comprises an occupancy level less than a predetermined threshold.

16. The method as described in Claim 12 wherein said fitness function  
comprises signal strength greater than a predetermined threshold.

15 17. The method as recited in Claim 12 wherein said fitness function  
comprises residing within a predetermined physical distance.

18. The method as recited in Claim 12 wherein said initiator device  
20 and said responding device are Bluetooth-enabled devices.

19. The method as recited in Claim 12 wherein said access point  
device is coupled to a network comprising a network server.

20. The method of Claim 19 wherein a list of all current network access point addresses is maintained on said network server.

5 21. The method as recited in Claim 20 wherein said list of access point addresses of c) is compared to said list of current network access point addresses, any differences being updated within said list of access point addresses in said memory cache of said initiator device.

10 22. The method of Claim 20 wherein said initiator device abstracts said list of access point addresses into a single abstract name.

15 23. In a wireless communication device having a wireless transceiver and a memory cache comprising a list of access point addresses, a method for updating said list of access point addresses comprising:

a) connecting said wireless communication device with a network server, said network server comprising a list of current network access point addresses for a network;

20 b) comparing said list of access point addresses to said list of current network access point addresses;

c) adding to said list of access point addresses in said memory cache of said wireless communication device any addresses found on said list of current

network access point addresses and not found on said list of access point addresses; and

d) deleting from said list of access point addresses in said memory cache of said wireless communication device any addresses not found on said list of current network access point addresses and found on said list of access point addresses.

24. The method as recited in Claim 23 wherein said wireless communication device is a Bluetooth-enabled device.

25. The method as recited in Claim 23 wherein connecting said wireless communication device with a network server comprises connecting through an access point.

26. The method as recited in Claim 23 wherein said access point is a Bluetooth enabled device.

27. The method as recited in Claim 23 wherein said wireless communication device is a portable computer system.